

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn-Currently Amended) A circuit (1) for operation of a gas discharge lamp (3) with a switching transformer (2), which wherein the switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized in that wherein the switching transformer (2) further comprises a second control loop (80) for adjusting parameters including at least one of rise time and steepness of regions of a measured lamp waveform.

2. (Withdrawn-Currently Amended) A The circuit as claimed in claim 1, characterized in that wherein the control loop (80) comprises a third inner control loop (81).

3. (Withdrawn-Currently Amended) A The circuit as claimed in claim 2, characterized in that wherein the third inner control loop (81) comprises a computer circuit (83).

4. (Withdrawn-Currently Amended) A The circuit as claimed in claim 3, characterized in that wherein the computer circuit (83) is controlled by a commutation signal.

5. (Withdrawn-Currently Amended) A The circuit as claimed in claim 2, characterized in that wherein the third inner control loop (81) comprises a memory (85).

6. (Withdrawn-Currently Amended) A The circuit as claimed in claim 1, characterized in that wherein the second control loop (80) comprises an integrating controller (82).

7. (Withdrawn-Currently Amended) A The circuit as claimed in claim 1, characterized in that wherein the second control loop (80) comprises a measuring filter (5).

8. (Withdrawn-Currently Amended) A measuring filter (5) for a circuit (1) for operation of a gas discharge lamp (3) with a switching transformer (2), which wherein the switching transformer comprises a switch (22), a converter inductor (24) and a control means (27), characterized in that wherein the measuring filter (5) comprises two sample-and-hold stages (53, 56) for measuring a lamp waveform used to determine parameters including at least one of rise time and steepness of regions of the measured lamp waveform;.

9. (Withdrawn-Currently Amended) A The measuring filter (5) as claimed in claim 8, characterized in that the measuring filter (5) comprises further comprising an adder (61).

10. (Withdrawn-Currently Amended) A The measuring filter (5) as claimed in claim 8, characterized in that wherein the measuring filter (5) is controlled by a clock signal (90).

11. (Currently Amended) A method for operation of a gas discharge lamp (3) with a switching transformer (2), which wherein

the switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized by the following method steps comprising the acts of:

[[-]] measuring values of at least one operational datum (125, 128, 131) of the lamp (3) varying with time are measured continuously or discontinuously,

[[-]] comparing the measured operational data (125, 128, 131) is compared with calculated operational data,

[[-]] adjusting parameters necessary for calculation are adjusted, said parameters including at least one of rise time and steepness of regions of a measured lamp waveform, and

[[-]] selecting a duty factor of a supply current is selected in dependence on the adjusted parameters.

12. (Withdrawn-Currently Amended) A method for operation of a gas discharge lamp (3) with a switching transformer (2), which wherein the switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power,

characterized by the following method steps comprising the acts of:

[[[-]]] measuring values of at least one operational datum (125, 128, 131) of the lamp (3) varying with time are measured continuously or discontinuously,

[[[-]]] comparing the measured operational data (125, 128, 131) is compared with calculated operational data,

[[[-]]] adjusting parameters necessary for calculation are adjusted, said parameters including at least one of rise time and steepness of regions of a measured lamp waveform, and

[[[-]]] selecting a frequency of an alternating voltage or an alternating current is selected in dependence on the adjusted parameters.

13. (Withdrawn-Currently Amended) A method for operation of a gas discharge lamp (3) with a switching transformer (2), which wherein the switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized by the following method steps comprising the acts of:

[[[-]]] measuring values of at least one operational datum

~~(125, 128, 131)~~ of the lamp ~~(3)~~ varying with time are measured continuously or discontinuously,

[[-]] comparing the measured operational data ~~(125, 128, 131)~~ is compared with calculated operational data,

[[-]] adjusting parameters necessary for calculation are adjusted, said parameters including at least one of rise time and steepness of regions of a measured lamp waveform, and

[[-]] selecting a value value of a supply current is selected in dependence on the adjusted parameters.

14. (Currently Amended) A The method as claimed in claim 11, characterized in that wherein initially set parameters are parameters of a new lamp ~~(3)~~.

15. (Currently Amended) A The method as claimed in claim 11, characterized in that wherein the parameters are storables in a memory ~~(85)~~.

16. (Currently Amended) A The method as claimed in claim 11, characterized in that wherein in steady-state operation the

parameters inside the memory (85) are exactly those of the connected lamp (3).

17. (Withdrawn-Currently Amended) A circuit (1) for operation of a gas discharge lamp (3) with a switching transformer (2), which wherein the switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized in that wherein the switching transformer (2) further comprises an inner control loop (81) for adjusting parameters including at least one of rise time and steepness of regions of a measured lamp waveform.

18. (Withdrawn) A data and video projector having a circuit as claimed in claim 1.

19. (Previously Presented) A data and video projector having a circuit for implementing a method as claimed in claim 11.